ABSTRACT OF THE DISCLOSURE

Techniques for assigning ranks to nodes in a large linked database, such as world wide web or any other hypermedia database, partition the nodes so that the link matrix has a predominantly block-diagonal form. Within each block, a local rank is computed for nodes in the block, possibly by different computer in a distributed computing environment. A block rank is then estimated for each block as a whole, and may optionally include block-level weights to implement customized ranking. The local ranks and block ranks are then combined to form a global rank, which may be used to rank the nodes. Alternatively, a global rank vector for the database may be used as an initial vector in an iterative link-based ranking scheme to obtain more accurate global ranks for the nodes. The global rank vector may be divided to provide local rank vectors for use in subsequent applications of the method.

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